



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/625,637	07/23/2003	Kurt M. Schroeder	85677D-W	8069

7590 11/15/2005  
Paul A. Leipold  
Patent Legal Staff  
Eastman Kodak Company  
343 State Street  
Rochester, NY 14650-2201

EXAMINER
----------

HYUN, PAUL SANG HWA

ART UNIT	PAPER NUMBER
----------	--------------

1743

DATE MAILED: 11/15/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/625,637

Applicant(s)

SCHROEDER ET AL.

Examiner

Paul S. Hyun

Art Unit

1743

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 23 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-40 is/are pending in the application.
- 4a) Of the above claim(s) 1-23 and 40 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 24-39 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 11/7/2003.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Election/Restrictions*

Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1-23, drawn to a method of preparing polymeric particles with photographic couplers, classified in class 436, subclass 528.
- II. Claims 24-39, drawn to a polymeric particle, classified in class 436, subclass 56.
- III. Claim 40, drawn to an apparatus for use in detecting biological analytes, classified in class 422, subclass 58.

The inventions are distinct, each from the other because of the following reasons:

Inventions I and II are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case the polymeric particle as recited in Group II does not have to be prepared by a method recited in Group I. It appears that the polymeric particles and the photographic coupler can be prepared in a single solvent, the solvent being a high boiling organic solvent, with reasonable expectation of success.

Inventions III and II are related as subcombinations disclosed as usable together in a single combination. The subcombinations are distinct from each other if they are shown to be separately usable. In the instant case, Group III recites an element

Art Unit: 1743

comprising a support and a receiving layer. It appears that the receiving layer of the element can be used to support anything capable of fitting inside the receiving layer, not just polymeric particles recited in claim 24. See MPEP § 806.05(d).

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

During a telephone conversation with Kathleen Neuner Manne on November 1, 2005, a provisional election was made with the preservation of right to traverse to prosecute the invention of Group II, claims 24-39. Affirmation of this election must be made by applicant in replying to this Office action. Claims 1-23 and 40 have been withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

### ***Specification***

The attempt to incorporate subject matter into this application by reference to copending applications is ineffective because the serial numbers of the applications are not identified. The serial numbers of the copending applications are required.

### ***Claim Objections***

Claims 27-32 are objected to because of the following informalities:

In claims 27-29, the words "particles have" should be changed to "particle has" because claim 24 only recites a single particle.

In claim 30, the word "surfaces" should be changed to "surface" and the word "particles" should be changed to "particle".

In claim 31, the word "are" should be changed to "is".

In claim 32, the word "particles" should be changed to "particle".

Appropriate corrections are required.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claim 37 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it

Art Unit: 1743

pertains, or with which it is most nearly connected, to make and/or use the invention.

Claim 37 cannot depend from claim 35. The limitations recited in claim 37 contradict the limitations of claim 35. For the purpose of examination, claim 37 will be assumed to depend from claim 24.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 32, 33 and 37 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 32 and 33 recite the limitation "the loaded polymeric particle(s)" in the claims. There is insufficient antecedent basis for this limitation in the claims. For the purpose of examination, the term "loaded" will be interpreted to mean the particle comprising all the elements recited in claim 24.

Claim 37 recites the limitation "the dye-forming coupler" in line 1 of the claim. There is insufficient antecedent basis for this limitation in the claim. It appears that the Applicants intended the words "dye forming" to be "photographic".

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 24-30, 32-39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fujiwara et al. (US 5,238,810) in view of Mihara et al. (US 4,331,444).

Fujiwara et al. disclose a method for immunoassay. The immunoassay is accomplished by affixing antibodies/antigens on the surface of non-magnetic carrier particles (see Abstract). Furthermore, the reference discloses that the carrier particles are acrylic particle beads having diameters of 0.1 to 10 micrometers (see claim 14). However, the reference does not disclose a photographic coupler or a high boiling solvent.

Mihara et al. disclose a method for immunoassay using dye-forming couplers. The reference discloses that the immunoassay is conducted by labeling specific antibodies with the dye-forming couplers and allowing the labeled antibodies to react with an analyte of interest. The dye-forming couplers allow visual indication of the detection of the analyte of interest when the reaction product comprising the analyte and the labeled antibody is developed by oxidizing developing agents to form cyan, magenta or yellow dyes. The reference discloses that phenol or a naphthol type compounds produce cyan dyes, pyrazolone type compounds form magenta dyes and

Art Unit: 1743

open chain ketomethylene type compounds form yellow dyes (see line 55 col. 8 – line 43 col. 9). The reference also discloses that the couplers are dissolved in high boiling solvents before the solution is applied to the target substrate or support (see lines 25-30 col. 7 and lines 3-25 col. 10). It would have been obvious to one of ordinary skill in the art to utilize the dye-forming couplers disclosed by Mihara et al. instead of the magnetic labels and subsequent laser analysis disclosed by Fujiwara et al. to provide diversity in detection offered by the 3 dye colors.

Claim 31 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fujiwara et al. in view of Mihara et al. as applied to claim 24, and further in view of Rembaum (US 4,369,226).

Fujiwara et al. in view of Mihara et al. disclose the particle of claim 24, but the references do not explicitly disclose the molecular makeup of the functional groups.

Rembaum a protein binding substrate in the form of microspheres wherein functional groups in the form of aldehyde groups are disposed on the surface the microspheres. The aldehyde groups bond covalently to antibodies, enzymes and other proteins (see lines 12-27 col. 17).

It would have been obvious to one of ordinary skill in the art to provide the antibodies/antigens of the modified Fujiwara et al. reference with aldehyde functional groups so that the antibodies/antigens can bind analytes that are complementary to aldehyde groups.




Art Unit: 1743

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paul S. Hyun whose telephone number is (571)-272-8559. The examiner can normally be reached on Monday-Friday 8AM-4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jill Warden can be reached on (571)-272-1267. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

PSH 11/2/05

  
Jill Warden  
Supervisory Patent Examiner  
Technology Center 1700